Novel Approach for PDS Using RFID

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Abstract:
An annually enormous amount of Government capital gets misused due to fraudulence in the conventional Public Distribution System. This novel approach proposes a transparent and highly compactable distribution system with authentication for Ration Card Holder. This paper implements an application with RFID used as a smart card in place of a conventional ration card. The customer has to use this card contrary to a traditional ration card to get ration from the retailer. At any moment ration is collected by the family is logged into the RFID (smart) card. Family information of the user is also logged in the card. Every time before ration collection, the authorized person needs to go through the verification phase. Once verification is done, quantity that he collects is also logged into the system. Therefore not only invalid and dummy card ration collection is escaped but at the same time a felicitous log of quantity per product acquired by the card holder is also trailed. This architecture replaces the conventional paper ration book with RFID based smart card. Efforts are put together from our side to combat corruption and to have preferable management of public distribution system. This should get ambit in merchandise because now India moves towards corruption free country, before few months our new prime minister announces that “Anna Surksha Yojana” in this scheme every settler of India below poverty gets their food with very less price.

Keywords: RFID reader, GSM, Ration distribution system, Smart card.

I. INTRODUCTION

Ration card is an unavoidable credential for every civilian in India. It is used to purchase various obligatory items like sugar, oil etc. from the ration shops at a depreciated rate, issued by the government. This ration card also acts as residence as well as identity testament. But, the current ration card system has a snag. Most of the ration vendors keep phony ration cards with them. Due to pseudo ration cards, the vendor receives the supplementary ration from higher prerogative and vends it into the open market. The retailer may not provide a plenteous amount of food grains to consumers. Most of the time civilians are not savvy of the availability of ration in ration outlet. The retailer may sale ration at higher rates than recommended by the government or he may do fallacious entries in ledger. In this way, in the current situation we are facing predicament of fraudulence in public distribution system. There is no such stricking setup through which government gets acknowledgement of consumption of food grains by people and hence we move to smart ration card using RFID. The patron has to show this RFID tag to the RFID reader, which is attached to a system, which scan the information in the tag and resultant acquaintance vendors to give this much amount of consignment to that card holder. The basic purpose to use RFID is to vitally identify and track the attached electromagnetic tag.

II. LITERATURE SURVEY


III. PROPOSED SYSTEM

The block diagram of this approach public distribution system using RFID is shown in above figure. This system consist of various parts such as RFID, GSM and Smart card. To avoid the Fraudulence in public distribution system, this system is used. RFID reader as well as RFID tags used to identify the person id and to give equal grains to customer which allocate by government.

fig:-Block diagram of action
IV. METHODOLOGY
The proposed scheme is to develop an intelligent security system using RFID reader and tags to stop entries of unwanted persons in a critical area where only few customers are given permission to come inside. For this we are going to use RFID reader and passive tags, computer software and GSM. In this system the RFID reader is to be fixed on the computer which we want to use in public distribution and stop unauthorized customer. RFID reader is directly connected to ration distributor and inventory management software. When a person with valid tag swap on the RFID reader, the reader detects the tag sends signal to the software, then according the RFID number software get the card holder name, photo, mobile number and list of allotted grains & there quantity (as per government rules and regulations) from database which is located on server of public distribution authority. If RFID number is not registered in database then software will show "Invalid ID" on screen, vendor distribute grains as per allotted list and collect the cash manually. After allocation software generate a receipt and send a message with the details of item & total amount of purchase on ration card holder’s mobile number. And same time software deduced the quantity of sold grains in inventory database, so database can hold only unsold quantity of grains. This helps to public distribution authority for calculation of sold and unsold grains and reduce the fraudulence against common people.

![Flowchart of PDS](image)

Fig:- flowchart of PDS

IV. CONCLUSION
This novel approach project can provide a cherished, secure and efficient way of public distribution system. By using this technique of ration shops solves the problem of redundant manual process in Public Distribution System (PDS). This novel approach project definitely bricks a way for a corruption reduced India in the future. This new technology gives solution and this work will make a great change in Public distribution system and provides benefit to the government about current inventory management information and reduce the manpower.

V. FUTURE SCOPE
For better authentication of subscribers, a biometric system can be used. The provision can be made such as PDA device will update data directly to server online.

VI. REFERENCES